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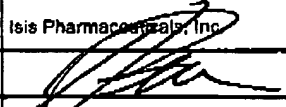
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TRANSMITTAL FORM	Application Number	10057.550	
	Filing Date	01/25/2002	
	First Named Inventor	Brett P. Monis	
	Art Unit	1635	
	Examiner Name	James Schultz	
(to be used for all correspondence after initial filing)		Attorney Docket Number	ISPH-0625
Total Number of Pages in This Submission		7	

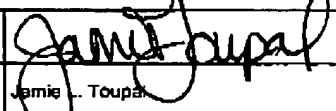
ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): REQUEST TO CROSS REFERENCE EARLIER RECORDED ASSIGNMENT
Remarks		RECEIVED OIPE/IAP AUG 02 2005

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Isis Pharmaceuticals, Inc.		
Signature			
Printed name	Jason D. Ferrone, J.D.		
Date	07/29/2005	Reg. No.	52,887

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature			
Typed or printed name	Jamie L. Toupa	Date	07/29/2005

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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DOCKET NO.: ISPH-0625

JUL 29 2005

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventors: Brett P. Monia

Serial No.: 10/057,550

Group Art Unit: 1635

Filed: 01/25/2002

Examiner: James Schultz

AUG 2 2005

Title: ANTISENSE OLIGONUCLEOTIDE INHIBITION OF RAF GENE EXPRESSION

**Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450**

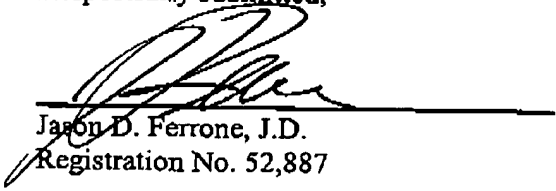
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REQUEST TO CROSS REFERENCE EARLIER RECORDED ASSIGNMENT

Dear Sir:

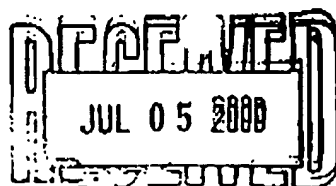
Applicant respectfully requests that the earlier recorded assignment for the parent application 09/506,073 at Reel/Frame 010745/0011 recorded 04/06/2000, a copy of which is enclosed, be cross referenced with respect to this application.

Respectfully submitted,


Jason D. Ferrone, J.D.
Registration No. 52,887

Date: July 29, 2005

**ISIS PHARMACEUTICALS, INC
1896 Rutherford Road
Carlsbad, CA 92008
Ph: 760-603-2722
Fax: 760-603-3820**



ISPH-0434

UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

JUNE 30, 2000

PTAS

LAW OFFICES OF JANE MASSEY LICATA
JANE MASSEY LICATA, ESQ.
66 E. MAIN STREET
MARLTON, NEW JERSEY 08053



101344461A

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PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 04/06/2000

REEL/FRAME: 010745/0011
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

MONIA, BRETT P.

DOC DATE: 03/17/2000

ASSIGNEE:

ISIS PHARMACEUTICALS INC.
2292 FARADAY AVENUE
CARLSBAD RESEARCH CENTER
CARLSBAD, CALIFORNIA 92008

SERIAL NUMBER: 09506073

FILING DATE: 02/18/2000

PATENT NUMBER:

ISSUE DATE:

MARY BENTON, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS



05-04-2000

FORM PTO-1595

1-31-92

Docket No.: ISPH-0434



101344461

DEPARTMENT OF COMMERCE
Patent and Trademark Office

RECORDATION FORM COVER SHEET PATENTS ONLY

ID NO:

To The Honorable Commissioner of Patents and Trademarks. Please record the attached original document(s) or copy thereof.

1. Name of conveying party(ies):

Brett P. Monia

4-6-00

2. Name and address of receiving party(ies):

Name: Isis Pharmaceuticals Inc.

Internal Address: Carlsbad Research Center

Street Address: 2292 Faraday Avenue

City: Carlsbad

State: California

Additional name(s) of conveying party(ies)
attached?

() YES (XX) NO

3. Nature of Conveyance:

(XX) Assignment () Merger

() Name Change () Security Agreement

() Other:

Execution date: March 17, 2000

Additional names (s) & address attached?

() YES (XX) NO

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4. Application number(s) or patent number(s):

A. Patent Application No(s). 09/506,073 FILED February 18, 2000

B. Patent No(s).

If this document is being filed together with a new application, the execution date of the application is:

Additional numbers attached? () YES (XX) NO

5. Name and address of party to whom
correspondence concerning documents
should be mailed:

Jane Massey Licata, Esq.

Law Offices of Jane Massey Licata

66 E. Main Street

Marlton, New Jersey 08053

6. Total number of applications and patents involved: One (1)

7. Total fee (37 CFR 3.41): \$40.00

() Enclosed

(XX) Authorized to be charged to deposit account.

8. Deposit Account number: 12-1086

(Attach duplicate copy of this page if paying by deposit
account.)

05/04/2000 DEPTES 00000047 121086 09506073

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9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Kathleen A. Tyrrell, Reg. No. 38,350

Name of Person Signing

Signature *Kathleen A. Tyrrell*

March 30, 2000

Total number of pages comprising cover sheet, attachments, and document: Four

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents and Trademarks

Box Assignments

Washington, D.C. 20231

DOCKET NO.: ISPH-0434

PATENT

A S S I G N M E N T

WHEREAS, I, Brett P. Monia, of LaCosta, State of California, am the inventor of a certain invention entitled **Antisense Oligonucleotide Modulation of raf Gene Expression**, for which I have made application for Letters Patent of the United States, said application having been filed **February 18, 2000** and assigned Application No. **09/506,073**; and

WHEREAS, ISIS Pharmaceuticals, Inc. hereinafter referred to as the assignee, of 2292 Faraday Avenue, Carlsbad CA, a corporation of Delaware, is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries:

NOW, THEREFORE, for and in consideration of the sum of One Dollar (\$1.00) to me in hand paid by said assignee, and other good and valuable consideration, the receipt of which is hereby acknowledged, I, the said assignor, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over to said assignee, the entire right, title and interest in and to said inventions or improvements and said application and any and all continuations, divisions and renewals of and substitutes for said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign to and authorize said assignee, to file in my name applications for Letters Patent in all

ASSIGNMENT - PAGE 1 OF ³A

DOCKET NO.: ISPH-0434

PATENT

countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by me had this assignment, sale and transfer not been made.

AND I hereby covenant that I have full right to convey the entire interest herein assigned, and that I have not executed and will not execute any agreement in conflict herewith, and I further covenant and agree that I will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said assignee, its successors, assigns, nominees, or legal representatives, and I agree to communicate to said assignee or to its nominee all known facts respecting said inventions or improvements, said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, and generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

AND we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to said assignee, as assignee of the entire right, title and interest, any

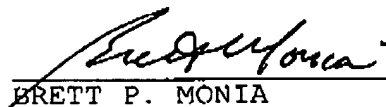
ASSIGNMENT - PAGE 2 OF 3

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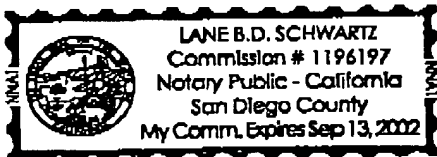
and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

IN WITNESS WHEREOF, I have hereunto set my hands and seals.

DATED: 3/17, 2000
BRETT P. MONIA

State of California)
) ss.
County of San Diego)

On this 17th day of March, 2000, before me, the undersigned, a Notary Public for the state, personally appeared Brett P. Monia, personally known to me/~~proved to me on the basis of satisfactory evidence~~ to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.



WITNESS my hand and official seal.


Signature of NotaryASSIGNMENT - PAGE 3 OF 4³